Are Prosthodontists Well-Equipped to Place Implants?

Six years ago, the Commission on Dental Accreditation of the American Dental Association mandated new standards to include the surgical placement of implants in Advanced Education Programs in Prosthodontics. Perhaps a strong rationale for this decision was a retrospective analysis of implants placed and restored by prosthodontic residents from January 2006 to October 2008 and published in 2013.[1] The study reported a cumulative survival rate of 97% (Kaplan-Meier analysis) for 306 implants placed with a computer-generated surgical guide. Further, no statistical difference was found in implant survival rates as a function of year of training. However, this may underscore the value of supervised university instruction during the initial learning curve, as Lambert et al have reported that implants placed by surgeons with an experience of less than 50 implants had more than twice the failure rate (5.9%) than surgeons who had placed more than 50 (2.4%).[2]

A 2019 retrospective study aimed to identify associations between clinician training and implant outcome among residents in the departments of oral surgery, periodontics, and prosthodontics.[3] A total of 2,048 dental implants were placed in 471 patients. Overall, there was a mean implant survival rate of 92.6%, with a difference of a few percentage points among the groups.

Since surgical prosthodontists appear to achieve respectable short-term implant survival rates, this begs the question of whether they are ideally suited to improve implant restorative success. The inconvenient truth is that peri-implant disease is ubiquitous, with the incidence of peri-implant mucositis and peri-implantitis at 43% and 22%, respectively.[4] Prosthodontists are keenly aware of the inextricable relationship between implant malposition and poor emergence angles (> 30 degrees), leading to inaccessibility of the implant platform for cleaning and doubling the incidence of peri-implantitis.[5] They are also well schooled in evidence-based rationale for a minimally invasive surgical approach favoring short implants (6 to 8 mm) over longer implants with augmentation, posterior cantilever implant restorations, and fixed partial prostheses rather than a default approach of placing one implant per tooth.[6] As end providers, prosthodontists have a unique opportunity to control and monitor the design, placement, and maintenance of implant restorations for patients in the quest to reduce peri-implant disease incidence.

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